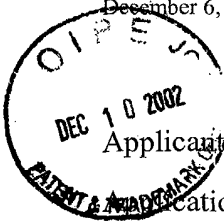


Doc#: 360596.1  
RWW/SAB/hw  
December 6, 2002

PATENT APPLICATION  
DOCKET NO.: 2875.1001-007



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: C. Thomas Caskey, John M. Shumaker and Andres Metspalu

Application No.: 09/711,476 Group Art Unit: 1655

Filed: November 13, 2000 Examiner: J. Fredman

Confirmation No.: 8353

Title: PARALLEL PRIMER EXTENSION APPROACH TO NUCLEIC ACID  
SEQUENCE ANALYSIS

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, P.O. Box 2327, Arlington, VA 22202	
on <u>12-6-02</u>	<u>Hollie Wakefield</u>
Date	Signature
<u>HOLLIE WAKEFIELD</u>	
Typed or printed name of person signing certificate	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
P.O. Box 2327  
Arlington, VA 22202

Sir:

This Supplemental Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)

☐ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☒ under 37 CFR 1.97(c) together with either:

☒ a Statement under 37 CFR 1.97(e), as checked below, or

☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:

☐ a Statement under 37 CFR 1.97(e), as checked below, and

☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

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DEC 12 2002

TECH CENTER 1600/2900

Statement Under 37 CFR 1.97(e)

- ☒ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☒ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☒ Copies of the cited references (AT2 through AV2) are enclosed.
- ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- ☐ The "concise explanation" requirement (non-English references) for reference(s) [ ] under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
  - ☐ the explanation provided in the Specification.
  - ☐ submission of the enclosed International Search Report.
  - ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
  - ☐ the enclosed English language abstract.

☒ Applicants request that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_ U.S. Patent Application No. 10/254,828, by C. Thomas Caskey, John M. Shumaker and Andres Metspalu, filed September 22, 2002, Docket No.: 2875.1001-008

\_\_\_\_ U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

\_\_\_\_ U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

\_\_\_\_\_  
Examiner

\_\_\_\_\_  
Date

☒ A copy of each above-cited application, including the current claims, is enclosed.

☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

☐ Please charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is enclosed.

☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

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Dated: 12/6/02

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 2875.1001-007		APPLICATION NO. 09/711,476	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION  December 6, 2002 <small>(Use several sheets if necessary)</small>				APPLICANT C. Thomas Caskey et al.	
				FILING DATE November 13, 2000	
				CONFIRMATION NO. 8353	
				GROUP 1655	
U.S. PATENT DOCUMENTS					
EXAM- INER INI- TIAL		DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE		NAME
FOREIGN PATENT DOCUMENTS					
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS
					SUB- CLASS
					TRANSLATION YES NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)					
	AT2	Cotton, R.G.H., "Current methods of mutation detection," <i>Mutation Research</i> , 285:125-144 (1993)			
	AU2	Kornher J. S. et al., "Mutation Detection Using Nucleotide Analogs that alter electrophoretic Mobility," <i>Nucleic Acids Research</i> , 17:(19)7779-7784 (1989)			
	AV2	Lee, Jin-Sung et al., "Identification of the most common mutation within the porphobilinogen deaminase gene in Swedish patients with acute intermittent porphyria," <i>Proc. Natl. Acad. Sci. USA</i> , 88:10912-10915 (1991)			
EXAMINER		DATE CONSIDERED			



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GRANDE BRETAGNE

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11 NOV 2002

Datum/Date

06.11.02

Zeichen/Ref./Réf. <b>Pha-1392-EP/DIV</b>	Anmeldung Nr./Application No./Demande n°//Patent Nr./Patent No./Brevet n° <b>99200676.7-2402/</b>
Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire <b>Pharmacia Biotech AB, et al</b>	

## COMMUNICATION

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

**This applies also to the search fees requested under Rule 46(1) EPC.**

See also OJ EPO 06/1999, 405.

- ☐ The abstract was modified by the Search Division and the definitive text is attached to the present communication.
- ☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

DUE DATE:	06/12/2002
FORMALITIES:	HSL ✓
PAT. OFF:	IPH
ON DB:	11/11/2002
CASE NO:	PHA 1392-EP/DIV



Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

REGISTERED LETTER



European Patent  
Office

# PARTIAL EUROPEAN SEARCH REPORT

under Rule 46, paragraph 1 of the European Patent Convention EP 99 20 0676

Application Number

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 92 15712 A (MOLECULAR TOOL INC) 17 September 1992 (1992-09-17) * page 10, line 33 - page 13, line 9 * * page 21, line 4 - page 34, line 4 * * page 48, line 28 - page 53, line 22 * * example 3 * * figure 2 * * claims 13-59 *	1,2,6-15	C12Q1/68
X	COTTON R G H: "CURRENT METHODS OF MUTATION DETECTION" MUTATION RESEARCH, AMSTERDAM, NL, vol. 285, 1993, pages 125-144, XP000443992 ISSN: 0027-5107	1,2,6, 10-14	
Y	* page 136 *	7-9,15	
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	-/--		
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C12Q

## LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

Place of search <b>MUNICH</b>	Date of completion of the search <b>1 October 2002</b>	Examiner <b>Madlener, M</b>
CATEGORY OF CITED DOCUMENTS		
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document		



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	SOKOLOV B P: "PRIMER EXTENSION TECHNIQUE FOR THE DETECTION OF SINGLE NUCLEOTIDE IN GENOMIC DNA" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 18, no. 12, 25 June 1990 (1990-06-25), page 3671 XP000310585 ISSN: 0305-1048 * the whole document *	1,2,6-15	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Y	KUPPUSWAMY M N ET AL: "SINGLE NUCLEOTIDE PRIMER EXTENSION TO DETECT GENETIC DISEASES: EXPERIMENTAL APPLICATION TO HEMOPHILIA B (FACTOR IX) AND CYSTIC FIBROSIS GENES" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 88, no. 4, 15 February 1991 (1991-02-15), pages 1143-1147, XP000371662 ISSN: 0027-8424 * the whole document *	1,2,6-15	
Y	LEE J-S ET AL: "IDENTIFICATION OF THE MOST COMMON MUTATION WITHIN THE PORPHOBILINOGEN DEAMINASE GENE IN SWEDISH PATIENTS WITH ACUTE INTERMITTENT PORPHYRIA" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 88, no. 23, 1991, pages 10912-10915, XP002212816 1991 ISSN: 0027-8424 * page 10912, right-hand column, last paragraph *	1,2,6-15	



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	KORNHER J S ET AL: "MUTATION DETECTION USING NUCLEOTIDE ANALOGS THAT ALTER ELECTROPHORETIC MOBILITY" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 17, no. 19, 11 October 1989 (1989-10-11), pages 7779-7784, XP002047718 ISSN: 0305-1048 * the whole document *	1,2,6-15	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)



**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 20 0676

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-10-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9215712      A	17-09-1992	US 5888819 A	30-03-1999
		US 6004744 A	21-12-1999
		AU 660173 B2	15-06-1995
		AU 1584892 A	06-10-1992
		CA 2105060 A1	06-09-1992
		EP 0576558 A1	05-01-1994
		FI 933870 A	03-09-1993
		FI 20010223 A	07-02-2001
		JP 6505394 T	23-06-1994
		NO 933136 A	02-09-1993
		WO 9215712 A1	17-09-1992
		US 5762876 A	09-06-1998